



MAYOR'S PROCLAMATION—Representing the employees of JSC, Astronaut Eugene Cernan accepted a Proclamation from Mayor Fred Hoffenz designating July 20 as "Space Day" in Houston. The presentation took place on July 18.

Comet Viewing Results Presented At Workshop

The early results from various observations of the Comet Kohoutek were brought together at a workshop held recently at Marshall Space Flight Center.

At this two-day symposium attended by over 100 scientists, a number of papers were presented for discussion and dissemination of data obtained on Kohoutek with NASA facilities and NASA coordinated observations from Skylab, aircraft rockets, and ground-based systems.

Although observatories throughout the world kept a watch on the Comet, the Skylab facility provided more observations than any other single observatory and conducted many unique experiments due to its ability to observe objects close to the Sun from above the Earth's atmosphere. The results of six of those experiments conducted during the SL4 mission and the visual observations of Kohoutek by the SL4 crew were presented at the symposium and contributed significantly to the overall picture of the Comet.

JSC employees who presented papers were Dr. Thornton Page, "S201 UV Photos of Comet Kohoutek"; Dr. Carl G. Henize, "Observations of Comet Kohoutek by Experiment SO19" and Dr. Edward G. Gibson, "Visual Observations of Comet Kohoutek from Skylab."

The visual observations by the SL4 crew and the photography from the White Light Coronagraph—designed to obtain pictures of the solar corona out to 3 million miles (six solar

radii) in visible light—provides information on the form and structure of the comet tail at perihelion. At this time Kohoutek was about one seventh as far from the Sun than is the Earth.



SL4 S201 PHOTO—This photo, taken by an S201 Far UV camera on December 25, 1973 from SL4 is the closest view of the comet (19 million miles) from the Sun, when its hydrogen halo was about one degree (1,600,000 miles) in diameter. The photo was taken three days before perihelion passage.

The observations of the anti-tail by Skylab just after the Comet swept by the Sun suggests that the particles which were ejected from the nucleus are 100 times larger than those particles forming the normal dust tail of comets, that these particles are more numerous than previously believed, that they are embedded in large amounts of volatile materials and that the structure of the nucleus influences their ejection.

These larger particles from other comets have produced the meteor streams that periodically produce brilliant showers.

Photographs taken a few hours after perihelion showed

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Alan Shepard Retires From NASA

Rear Admiral Alan B. Shepard, Jr., America's first man in space and one of 12 men to explore the Moon's surface, has retired from NASA and the U.S. Navy.

Shepard will join the Marathon Construction Company of Houston as a partner and Chairman of the firm. Marathon is a subsidiary corporation of Coogan and Walters of Houston, the largest developer of K-Mart shopping centers in the U.S. He has been associated with Coogan and Walters as an investor for several years.

Dr. James C. Fletcher, NASA Administrator, praised Shepard's dedication and determination. "Al Shepard was the first American to make a space flight and his determination to overcome a physical ailment after his suborbital mission carried him to a highly successful manned lunar landing mission."

JSC Director Dr. Christopher C. Kraft, Jr., noted that half of Admiral Shepard's 30-year naval career has been devoted to the United States' space program.

"He is a pioneer who contributed significantly to his country's progress," Kraft said. "Shepard is a man of great demonstrated courage and capability and we will sorely miss his presence in our space activities. As he concludes one outstanding career to begin another, all of us in the space program wish well."

Shepard called his association with the manned space program since its inception "a privilege and an honor."

"It is remarkable to review the tremendous accomplishments we have made in space and to see, every day, the contributions of space technology toward a better way of life," he said. "I am indeed proud of my duty with the U.S. Navy. I have enjoyed this long opportunity of service to my country. It has been a most rewarding experience to have been a member of this nation's dedicated armed services."

One of the original seven astronauts, Shepard has been

(Continued On Page 2)

Don Lind Injured

Astronaut Don Lind, 44, Monday morning was injured when he was struck by a car while crossing NASA Road on his bicycle. Lind, who was on his way to work at JSC, was taken to the Clear Lake Hospital emergency room in Webster.

Officials at the hospital reported that Lind suffered a fracture of the lower left leg and the left ankle, and a fracture of the right index finger bone between the knuckle and wrist. Surgery was required on the fractures.

Lind currently is recovering from the injuries at the Clear Lake Hospital.



Spacelab Representatives Hold Discussions At JSC

Speaking to a group of 45 European representatives, JSC Director Dr. Christopher C. Kraft invited the group to "feel as much a part of what we do here as we are ourselves."

The European delegation met at JSC last week for detailed discussions with U.S. representatives on the new Spacelab which European countries are developing for launch aboard the U. S. Space Shuttle.

Dr. Kraft said he hopes NASA's relationship with Europe will be a "long and good one."

The European group was headed by officials of the European Space Research Organization (ESRO) and its prime Spacelab contractor ERNO, the Space Division of the VFW-Fokker Co.

Key Spacelab officials taking part in the discussions were Heinz Stoewer, Spacelab acting head, ESRO; Dr. Hans Hoffman, Spacelab Manager, ERNO, and Jack C. Heberlig, Space Shuttle payloads coordinations manager, JSC.

Speaking on behalf of the Spacelab group, Stoewer said the relationship between Europe and the United States will be a "working one."

"I think we will have a great decade directed more towards bringing space down to the people and eventually making

space commercially viable," he said.

Topics discussed at the meetings include Spacelab interfaces with the Shuttle environmental control and life support subsystems, thermal analysis, structures, electrical power and distribution avionics and mission operations.

Spacelab is a cooperative venture between the U. S. and the nine country member European Space Research Organizations. European countries represented in ESRO, the Spacelab project, are West Germany, Italy, France, United Kingdom, Switzerland, Spain, Netherlands, Belgium and Denmark.

ESRO on June 6 awarded a \$226 million contract to the ERNO group for the construction of a reusable space laboratory which will be carried aboard the Space Orbiter now being developed by NASA.

Spacelab will be used by European scientists in Shuttle flights scheduled to begin in 1980.

The Marshall Space flight Center is responsible for the management of the U. S. portion of the Spacelab program and JSC has the overall responsibility of the Space Shuttle program as well as the Shuttle Orbiter.

The Europeans also spent several days at Marshall.



ESRO REPRESENTATIVES—JSC Director Christopher C. Kraft converses with Heinz Stoewer, Spacelab acting head, during a recent visit of 45 European Spacelab representatives to the Center. Seated next to Stoewer is Hans Hoffman, Spacelab Manager, ERNO, the Space Division of the VFW-Fokker Co.

Versatile Secretary Gets Outstanding Award

Marilyn W. Moessner of the Data Systems Development Branch, Institutional Data Systems Division, was chosen Out-



Tournament Pending

The Moonwalk Slow Pitch Softball Tournament, hosted by the Space Center Men's Team is scheduled for August 2-4. Games will begin at 7 p.m. Friday and at 8 a.m. Saturday and Sunday. The winners' game is scheduled for 11 a.m. Sunday.

Trophies donated by the Clear Lake Hospital will be presented to winners in the men's and women's divisions.

The public is invited to view the games which will be played on the JSC softball fields near the Gilruth Recreation Center.

Travel Club Plans Exciting Vacations

The Aerospace Employees Travel Club is planning a trip to New Orleans via chartered bus over the Labor Day weekend. The bus will depart Houston Saturday, August 31 and will return Monday, September 2. Accommodations will be in a new hotel in the French Quarters. For information and reservations, call Pat McLaughlan, 522-8673.

Also, plans for a European tour are in preliminary stages. The trip, tentatively scheduled for next spring, will include inexpensive air fare from Houston to Europe and various land tour options for participating members of the Aerospace Club. Further suggestions from employees are welcome while the trip is still in planning stages.

Persons interested in the trip are encouraged to apply for passports as soon as possible, learn all about Europe and start saving money!

Call Ray Nieder for further information on the European trip.

standing Secretary for the month of July.

Marilyn serves as private secretary to Branch Chief R. Regelbrugge, and as branch secretary to four section heads and to approximately 18 programmer/analysts.

Along with her duties as a private secretary, Marilyn performs many administrative functions which require coordination among branch personnel. Many of these employees also have significant contractor technical monitor responsibilities which create a heavy typing and correspondence load. Marilyn handles this workload efficiently and frequently works extra hours to meet stringent deadlines.

She has also taken on additional secretarial duties when new offices were merged with offices in the Data Systems Development Branch.

Marilyn has formulated procedures for coordinating and distributing correspondence and

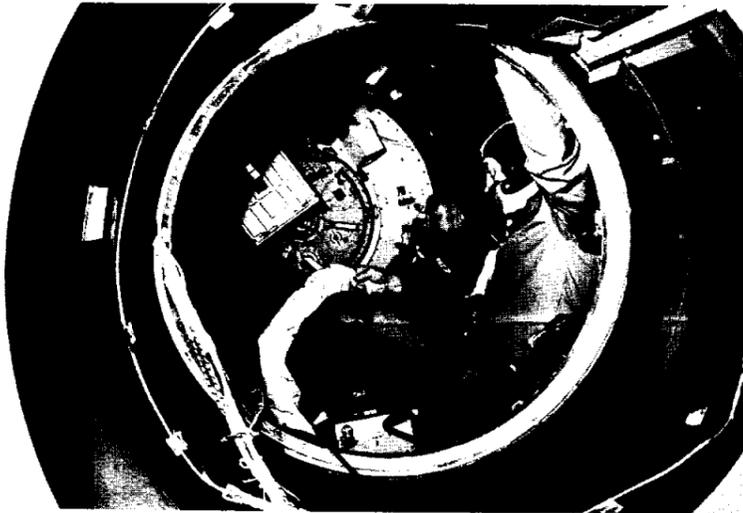
documentation originating within the Institutional Data Systems Division.

Regelbrugge says Marilyn's superior performance is evident primarily in three aspects of her work—her versatility, her communication skills and her cooperation.

"Mrs. Moessner's versatility in secretarial skills including typing, shorthand, editing, etc. is outstanding. She communicates in a very effective manner leaving no areas for misunderstanding. She produces documents very often under extremely tight deadlines and does so with complete cooperation and composure," Ruggelbrugge said.

Marilyn says she feels "very pleased" to have been selected as Outstanding Secretary of the Month.

"She certainly deserves the award," Regelbrugge commented. "JSC could not have a finer secretary."



ASTP DM CHECKOUT—Astronauts Donald K. Slayton (foreground) and Thomas P. Stafford help checkout the Docking Module back-up flight article during Apollo Soyuz Test Project preflight preparations at JSC. Stafford is the commander of the American ASTP crew, and Slayton is the docking module pilot.

Aero Club Conducts Classes

The JSC Aero Club will conduct ground school classes to familiarize Instrument Rating (IR) applicants with material required to pass the Federal Aviation Administration (FAA) IR written examination.

Since new regulations regarding qualification of applicants for the Instrument Rating will go into effect November 1, 1974, the offering of the course is quite timely.

The classes will be held at Hobby Airport beginning at 10 a.m. August 10 and will include sessions on flight procedures, Air Traffic Control, Federal Aviation regulations pertaining to instrument flying and similar information.

The course will include eight lessons and will cost \$50. Instructional materials may be obtained at additional cost through the Aero Club.

Shepard

(Continued From Page 1)

with NASA since April, 1959. He became the nation's first man in space on May 5, 1961, when he flew the Mercury capsule "Freedom Seven" on a suborbital mission.

Shepard commanded the Apollo 14 lunar mission from January 31 to February 9, 1971. On February 5, 1971, he became the fifth man to step on the moon. He has served as Chief of the Astronaut Office at JSC for a number of years.

Shepard has been on active duty since his graduation from the U.S. Naval Academy in June 1944. He has served on a destroyer and several aircraft carriers as well as on the Atlantic Fleet staff. He is a graduate of the Naval War College and the U.S. Naval Test Pilot School.



PAINTING TO GOVERNOR—NASA—contractor artist Jack Kroehnke has presented to Governor and Mrs. Dolph Brisco his painting "Mission by Moonlight," a nighttime view of Mission Concepcion in San Antonio. Kroehnke dedicated the painting to "the people of Texas." The presentation at the Capitol in Austin was arranged by Ray Barnhart, state representative from the NASA-Pasadena district.

Results of Comet *(Continued From Page 1)*

the "sunward" spike, a thin, faint filament extending toward the Sun as opposed to the broad, bright tail which extends away from the Sun. These photographs showed more large particles in Kohoutek than in the average comet.

Further analysis of these photographs as well as the photographs obtained by the 35mm camera (S233) will provide excellent photometry of a comet from pre-perihelion to post-perihelion.

The far-ultraviolet camera (S201) which was flown on SL4 specifically for comet observations, shows the development and decline of the hydrogen halo photographed in light emitted by hydrogen atoms (Lyman Alpha). The production rate for the atomic hydrogen was obtained from the photographs. The amount of hydrogen carried from the nucleus is an important factor for understanding cometary physics.

Analysis of photographs taken with the S019 ultraviolet objective prism spectrometer is difficult because of weak emission and poor resolution. Oxygen hydroxyl (OH) and cyanogen (CN) emission features were tentatively identified and were variable during the observations of SL4.

Although the composition of

comets still remains unknown, the observations of Kohoutek are consistent with a comet model which assumes that when far from the Sun, the material of a comet consists primarily of hydrogen, carbon dioxide and water with a small amount of cyanic acid and methyl cyanide in ice and clathrate. However, as the comet approaches the Sun, it breaks up into gases that we actually see in the glowing comet such as carbon, hydrogen and the like.

The birthplace of Kohoutek may have been within the solar system which formed from a fragmented interstellar cloud. The main body of the nucleus is probably a porous material with an extremely low strength.

Observations of Comet Kohoutek indicated that more material was ejected from the Comet before perihelion than after. This suggests that the Comet probably had never been close to the Sun.

Kohoutek may be among the oldest comets in the solar system and may represent one of those bodies least changed by subsequent events since their creation. Therefore, knowledge of the structure and composition of this comet potentially provides significant insight into the question of the solar system's evolution.



VOE STUDENTS—Shown in the photo above are the students participating in the Vocational Office Education (VOE) Program at JSC. The VOE program is designed for seniors in business education, whose curriculum combines on-the-job training with occupationally related classroom instruction.

ROUNDUP

NASA LYNDON B. JOHNSON SPACE CENTER HOUSTON TEXAS

The Roundup is an official publication of the National Aeronautics and Space Administration Lyndon B. Johnson Space Center, Houston, Texas, and is published every other Friday by the Public Affairs Office for JSC employees.

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Roundup Swap-Shop

Swap Shop advertising is available to JSC and on-site contractor personnel. Articles or services must be offered as advertised, without regard to race, religion, sex or national origin. Ads should be 20 words or less, including home telephone number. Name and office code must accompany, but need not be included in ad copy. Typed or printed copy must be received (AP3 Attn: Roundup) by Thursday of the week before publication.

MISCELLANEOUS

2 motorcycle helmets, large, \$15 ea. bumper carriers. \$15. Lindsey, 488-0517.
 Lawn mower, self-propelled, 22", won't start, getting old, make ofr. 333-3071.
 Set of Ludwig drums in gd cndn, bass, tom-tom, snare twenty-inch Zilgen cymbal. \$350. 334-3058
 New car top carrier, was \$11 now \$6. 554-7263
 Model 28 (.357), Smith, Wesson revolver, li nw, less than 200 rounds fired, vry light recoil, 44 ozs. \$130. 554-7263.
 Minox C, fully auto, w/ case, f3.5, 7 sec to 1/1000 sec, cube flashgun/case, textbook, film/p p mailer \$125. Liebergot, x6191.
 Bass amp. (2-15") JBL speakers, cabinet, fender bass guitar, xint cndn. 534-3243.
 Car-top lug carrier for use w/ existing rack. 38"x46"x15" approx full length zipper, perfect cndn, \$7.50. E. E. Lattier, 534-2756.
 Univox bass amplifier, 15" speaker, prfct cndn, used about 6 hours, \$135, bass guitar, \$15. 944-3522
 Golden ram reg ladies golf clubs, new, 8 irons, and 4 woods, \$125.
 Chromega cotar enlarger, li nw, top-of-the-line, make ofr. Horton, 334-2360 aft 6.
 Minnesota Fats'-designed pool table (4'x8'), slate bed, pockets, year old, cue sticks, balls, nice. \$450 or bst ofr. 477-0082.
 Photographic/darkroom equipment, Time-Q-Lite model Etc 69 timer, xint cndn, \$20, Premier Prof Model no. 110 print dryer, 2 sides, color, bw, therm controlled, \$30, dr light w/ 5 1/2" dia-Kodak OC and no 10 circ filters, in-line switch, 10. easels, Spratone 11x10" max, \$5. 534-4603
 One wig case, \$3, albun shag wig, \$3, Early American rocking chair, \$10, set of dog clippers used 3 times, \$5. 941-5464.
 Electric motors, jet pump, refrig and auto ac equip and parts for sale, 333-3382. Bauch.
 Wilson woods, ram irons, Atlantic bag and Ajay golf cart, gd cndn, 474-2203, \$75.
 Cornet, xint cndn, Conn "Director" model, \$100.
 New electronic slide rule calculators, Commodore SR-36, retail \$169 now \$135, trig, scientific notation, Parenthesis, etc. Ramon, 488-1238.
 6" Craftsman metal turning lathe w/ access, li nw, \$200. 334-1869 aft 6.
 VW tow bar and trailer hitch, \$10 ea. 481-0439
 Almost nw baby items, playpen \$10, swing \$4, Delux stroller, \$15. 331-5826.
 Router/planner kit w/ metal case, Black-Decker, industrial, xtra cutting bits, 554-7052.
 Royal elect off typewriter, \$120, nw 13 diamond dinner ring, \$350, bic vinyl love seat, \$75, 24" P.A. horn, \$25 and solid state stereo amp, \$35. 488-1846 or 332-3355.
 Ventura guitar w/ case and extras, \$50, wgn wh sofa and platform rocker, naugahyde covered, oak 554-7052, \$120.
 Moving, antique cast iron stove, 2 antique chairs, 488-6507.
 Glass and wire cages for sm animal, 24x14"x11", \$15. Rubenstein, 334-2354.
 Camera, Mamiya super 23 (press) 2 1/2x3 1/2, w/ roll film back, cut film back, extension tubes, 100 mm f 3.5 lens, handle and flash bracket, C'ree, 481-1158.
 Keystone 35mm slide projector in carrying case, \$15, other extras for sale, McCreary, 946-5285.
 Stereo equip, empire turntable, Fisher 500c receiver, JBL speakers, all or part, Stephenson 946-4286.
 1 pr large advent speakers, walnut enclosures, immaculate, have orig shipping ctns, \$175 pr. Musgrove, 488-3966.
 First flight irons, TPD, 2-9 and pw, S-Shaft, nvr used \$150, Regelbrugge, 5531, 944-4982.
VEHICLES
 73 Mazda RX3 wagon, air, tape, lug rack, gd cndn, 488-5259.
 72 VW Super Beetle, li nw, 1 owner, 17,000 mi, a/c, radio, blue w/wh interior, 481-4814 aft 6 p.m.
 70 Lemans, 2-dr, gd cndn, nw tires, air, pwr, \$1500, Joslyn, 483-3205, weekdays, 986-5394 aft 5:30 wknads.
 68 T-Bird Landeau, ice green, vinyl top, mechanically prfct, nw tires, trade on compact such as 240-Z, Michael, 333-2468, X4416.
 67 Dodge Charger classic fastback, air, gd rubber, 77,000 actual miles, nw paint, tuneup, radiator, light metallic blue exterior, dark blue interior, xint cndn, Schmidt, 472-8908 aft 5:30
 Piper j-3 airplane, gd cndn, reasonable, Michael, 333-2468, x4416
 73 BMW 2002 tii fuel injection, Blaupunkt stereo, fact air, alloy wheels, Koni shocks, 7000 mi, \$6000, 946-4275.
 69 Merc Montego, 8 cyl, 2 dr, auto, air, pwr disc brk, radio, \$750, Boykin, 481-0050.

68 Dodge Super Bee, 4 spd, Shelby Mags, headers, Mickey Thompson 50's, Ward, 946-7860.
 69 Merc wgn, air, radio, gd wrk car, Jim 482-7697.
 67 Pontiac Catalina, ac, auto, radio, mechanically sound, gd trans, \$195, 554-6749 aft 5.
 67 Plymouth VIP, metallic blue w/ white vinyl top, loaded, sti belted radial tires, clean, \$650, Hardee, 2666, 334-5665.
 70 Corvette conv, 454, 4 spd, air, am/fm, hard/soft tops, nw tires, \$3200, 481-4664.
 26" Sears woman's 1 spd bike, xint cndn, twin side baskets, \$15, Marilyn, 534-2066.
 W Will trade negotiate, 69 Toyota Corona 2dr/htr, radio, nw tires, for medium size sta wgn, Bernie, 334-1138.
 73 Harley-Davidson "SX350" low mi, \$875, 485-4995 aft 5.
 Camper, 8 1/2% ft w/ stove, sink, water tank, ice box, toilet, 5" foam mattresses, closet, cupboards, attached lifting jacks, Cree, 481-1158.
 73 Duster V8, gd cndn, ac, vinyl roof, 50,000 mi, gd tires, hubcabs in trunk, \$1995, 333-2848.
 70 Travel mate tent trailer, sleeps 6, fold out kitchen, xint cndn, \$975, 488-2652.
 Nimrod Capri Hard top camper trailer, sleeps 4, \$550, 481-1876
 67 Dodge Polara, prfct cndn, nw tires, must see to appreciate, 946-7104.
 71 Plymouth Fury sta wgn, 9 pass, ps, pb, air, beautiful drk bronz bargain at \$1,295, 944-7632.
 68 Ford Torino GT, gd rning cndn, gd tires, air, pwr, str, am/fm, \$800, 474-4489.
 68 VW Beetle, clean, xint cndn, thruout, nw radials, 30 mpg, \$825 or bst ofr, Chuck, x3163, 944-2685 evenings.
 Girls' 20" Huffy Sting Ray bike, \$10, 334-2993.
 66 Chrysler 300 4 dr htdp all xtras, clean, gd shape, \$495, Parmenter, 482-7734.
 69 Dodge Monaco, xint mechanical cndn, radio, tape deck, pwr, air, 1 owner, 488-0192 aft 5.
 71 Mazda R-100 (rotary eng) 1w mi, nw paint, air, Michelin radial tires, \$1850 or trade down, 332-3355 or 488-1846.
 New 1974 Mercury Marquis, must sacrifice, fully loaded 488-6507.
 Ladies bike, single or three-spd, 26-28", \$15-\$25, 554-7052.
 70 Dodge Swinger, 2dr, air, radio, ps, vinyl int, top wsw tires, tinted glass, 6 cyl, \$11675, evenings, 695-5695.
 28" Silver Streak Travel trailer, 72, air, carpet, many xtras, see to appreciate, show by appointment, 488-6670 aft 5, 488-3377.
 Fully self contained travel w/ elec brakes, gd tires, \$1295, 644-0315.
 72 Honda 350, 450 front end, disc brakes, 9000 mi, nw engine ovrhaul, \$550 cash, 474-2203
 Yamaha street motorcycle, \$120 or bst ofr, 488-1846.
HOUSEHOLD ARTICLES
 Avocado Frigidaire refrig w/ bottom freezer for similar model in Harvest Gold, Robinson, 944-3243.
 Kenmore gas clothes dryer, gd cndn w/ owners manual and parts list, \$60, Williams, 332-1763.
 Stereo equipment, empire turntable, Fisher 500 c receiver, JBL speakers, all of part, Stephenson, 946-4286.
 Dryer and household goods for sale, 473-9121
 Kenmore washer, 3 cycles, temper-ature settings, \$30, Williams, 477-0082.
 Blue/green carpet, 12x12 bound, w/ pad, new, \$150 now \$70, 944-8717.
 Hoover Convertible Deluxe, upright vacum cleaner, model no 1076, 2 yrs old, xint cndn, \$50, Kipatric, 534-4603.
 King size bed orig \$750, firm mattress-foundation, velvet, quilted hdbd, matching spread, fram, 6 mos old, evenings, 695-5695, \$425.
 Avacado Hoover portable apartment-size elec washer and dryer, 1973 used 8 mos, in mint cndn, \$200, 946-6242 aft 5.
 Sears Best Microwave Oven, li nw, \$460, will sell for \$250, 482-7858, before 8:30 a.m. or aft 9 p.m.
 Wood dining table w/ 4 chairs, table cloth and matching seat covers, antique yellow, \$65, 481-2327.
 Drop leaf dinett set, 4 pc, 1 dbt chair, \$40, gas range, O.Keefe-Meritt, 30-32", avocado, xint cndn, \$120, sofa, chair, Danish modern w/ set of end tables and coffee table, 554-7052.
 Two gas dryers, \$20, \$40, elect stove, li nw, \$60, 488-1846.
PROPERTY AND RENTALS
 Wooded lot on Lake Conroe, 626-0487,

Joan.
 2 bdrm mobile home on secluded leased Waterfront lot w/ private ramp, dock, swimming on Lake Livingston, \$3000, 941-0489.
 Lease, 3-2-2 brick house, cntrl air, heat, bit-ins, \$250/mo, Dickinson, 534-3075, aft 6.
 Lease, house, El Lago, 4-3-2 huge fenced yd, contemp, \$350/mo, 334-2382.
 Beach cottage on the Gulf, \$200 wkly, Horton, 334-2360 aft 6.
 15 acres on NASA Highway 1 near JSC, highway frontage, 334-2360 aft 6.
 Camping lot, Texas campgrounds near Conroe, security, leave your trailer, \$1200, 488-2652.
 Wooded lots for sale in Roman Forest, 35 mi N of Houston, 332-3751.
 Scarsdale 3-2-1 brick, immaculate, VA 8 1/2%, White x3541 or 481-0439 aft 5.
 Beautiful new 2 br mobile home, cntrl air/heat, carpet, trees, water furnished, suburban Friendswood, \$140 mo, 331-5826.
PETS
 Free, 2 female, 6 wks, shots, mother AKC reg dachshund, father brand x, pups look li dachshunds, 334-4305, Carole.
 Free, adorable 2-mo old kittens, Lois 3281.
 Gentle sorrel mare, 16 hand, 11 yrs old, has been used for roping and barrel racing, \$325, Speier, 333-2263.
 Labrador retriever pups, sire, AM field trial champion, WWACCAMA's tinker, gd breeding for exceptional hunting dogs, Bain, 534-3228.
 2 toy poodles, silver, champion blood line, 667-3474.
 Free cats and kittens, various ages and sizes, cute, friendly, housebroken, Marilyn, 474-4098.
 AKC Dalmations, well marked, 3 males, 2 females, \$50 ea, 481-4660.
 4 AKC reg toy poodles, 9 wks, male wh w/ apricot ears or apricot, \$30 ea, 538-1025.
BOATS
 2 hp Johnson outboard, lightweight, used only 2 hours, short shaft, \$140, Blount, 333-4609.
 Columbia 24 sailboat, sleeps 4, has head, sea swing stove, water tank, sink and 9.5 hp outboard, Pearson, x3777.
 Dolphin Sr. Sailboat, gd cndn \$325, Cheatham, 334-3265.
 Gulf Coast 18 sailboat, Seagull 3hp outboard, Little Dude trailer, xint cndn, inventory, \$2600, 481-4664.
 Galvanized boat trailer for 15' aluminum boat, 554-7052.
WANTED
 Evinrude motor for parts, 50hp, 58/59 model or 75 hp 59/63 model, 941-0489.
 House to rent in Seabrook intermediate school district, nded immediately, 334-1238.
 Carpool from College Park Subdivision of Deer Park to vicinity of Building 17, 8-4:30, Smith, 479-5096 or x-4623.
 Volunteers to assist Earth Awareness Foundation on community improvement projects, membership info, Mrs. Barbeau, 333-3101.
 Riders to join car pool from area of Westheimer/610 Loop, 8-4:30, Cathey, x2551.
 Beginners bike, 14" or 16" w/ training wh, 481-2327.
 Form or join car pool leaving Edgebrook and Gulf Frwy, 7:30, Bldg 7A, 8-4:30 Donna, 5101.
Lost and Found
 Found pocket knife in building 45 parking lot on 6-26-74, 483-6420.



AT THE RACE TRACK—Pictured above are some of the employees who went to the Evangeline Downs Race Track in Lafayette, LA, recently. The trip was sponsored by the JSC Aerospace Employees Travel Club.

EAA Attractions

Blood Bank

The next JSC Blood Bank drive is scheduled for Wednesday, August 7 at the Gilruth Recreation Facility.
 The purpose of the Blood Bank is to ensure that the blood needs of JSC employees and their families are met. In order to accomplish this goal, Blood Bank members must donate during the regularly scheduled drives or at the St. Luke's Blood Bank in Houston.
 A donation of one unit of blood entitles an employee or a family member to blood replacement for one year from the date of the donation. Those persons unable to donate may obtain someone to donate for them. All JSC and contractor employees are eligible. For an appointment call Helon Crawford, x-3809.

Picnic

The JSC Picnic is scheduled for September 14 this year.
 In keeping with the picnic theme—Country Fair—a series of short entertainment segments will be presented throughout the day. These segments will be patterned after the Old Time Medicine show.
 Any employee who would like to participate in the talent portion of the picnic should contact Juanita Bower, x2737 or Phonicille Devore, x5404.
 Volunteers are also needed to provide items for the Arts and Crafts display. The articles will not be sold, Contact Karla, x5309.
 Picnic tickets will be on sale August 12 at the Bldg 11 Exchange Store and from EAA Representatives.

Tennis Club

The JSC Tennis Club is planning an "Outing" to the match between the Houston E-Z Riders and the Toronto Royals, Sunday, August 11.
 Tickets will be half price for all EAA members and their families. Reservations must be made with Lois Miller, X3281 by August 7. Those attending will meet in the lobby of the Sam Houston Collesium at 6:45 on the night of the match to pick up tickets.

Football

Coupons for Houston Texan Football games are now available at the Bldg 11 Cafeteria. The coupons are free and are good for a \$1.50 discount when purchasing a ticket at any of the regular ticket outlets.

SPSE Meeting

The Society of Photographic Scientists and Engineers will meet at 7:30 p.m. August 22, in the Southwest Savings and Loan Building, Nassau Bay. Guest Speaker, Dick Underwood, will speak on "Photography From Space."

Bowling

The Jimmy Warren Memorial Bowling League will hold an Organizational Meeting for the 74-75 season on Thursday August 15. The meeting will be in the Recreation Center at 5 p.m. Agenda will include election of officers, adoption of rules, and confirmation of teams. All team captains should attend.

Tennis Courts

Effective August 5, four major changes will be implemented in tennis court operations.
 1. Reservations may be made two hours in advance.
 2. One and one half hour time slots will be available for ladder matches only.
 3. All names in the party must be given when making a reservation.
 4. Every one will be required to present membership cards in Rm 123 before claiming court reservations.

Important!

Cars and motorcycles are not to be driven off the roads or parking lots at the recreation center. This includes motorcycles in the ball parks and cars in the picnic area.

New Schedule

The Gilruth Recreation Center is now on a modified summer schedule. On Fridays the building will be open from 9:00 a.m. til 6:00 p.m. and Saturdays from 8:00 a.m. til 1:00 p.m. The regular weekend hours will resume after Labor Day.

Ticket Corner

Bldg. 11

Astros any game, \$2.50-3.50 for \$3.50-\$4.50 seats.
 Astroworld all season, adults \$4.25, children \$3.25.
 Houston Texan Football, all home games, coupons good for \$1.50 discount.
 E-Z Riders Tennis, all matches \$3 coupon for \$5 seats.
 Six Flags, all season, adults \$5.60, children \$4.70.
 Seven Seas, all season, adults \$3, children \$2.20.
 Lion Country Safari, year around, adults \$3.35, children \$2.45.
 Disney Magic Kingdom Club, free.

Technology Developed For Space Ventures Applied On Earth

The technology developed by NASA for the space program is being applied today in almost every field of human activity—from new conveniences in our everyday lives, to helping solve some of the most serious problems facing modern society.

Currently NASA Technology Applications Teams are working on more than 300 urban-related problems involving transportation, public works, environmental protection, fire safety and biomedicine.

The focal point for this effort is the Technology Utilization Program. Set up in 1962, its purpose is to speed the transfer of technology to non-aerospace applications. The process involves three basic techniques:

identification of new innovations, documenting them and spreading the word as widely as possible.

To make new technology available to industry, NASA has a network of six Regional Dissemination Centers located at Universities and research institutions. The centers are non-profit organizations, funded in part by NASA. Their job is to provide industrial users access to over one million technical reports whose contents have been abstracted, categorized and computerized for ready access. The centers, which serve thousands of industrial clients annually, include: Aerospace Research Applications Center (ARAC), Indiana Univer-

sity, Bloomington, Indiana; Knowledge Availability Systems Center (KASC), University of Pittsburg, Pittsburg, Pennsylvania; New England Research Application Center (NERAC), The University of Connecticut, Storrs, Connecticut; North Carolina Science and Technology Research Triangle Park, North Carolina; Technology Application Center (TAC), The University of New Mexico, Albuquerque, New Mexico; and Western Research Application Center (WESRAC), University of South California, Los Angeles, California.

A major portion of the Technology program is also directed toward working with public agencies at the Federal, state and local levels to identify specific areas where NASA technology can be applied.



QUADRIPLÉGIC AIDED BY SPACE DEVICE—An electronic device designed originally to activate controls in a spacecraft in case the astronauts lost use of their limbs, is now being used at Jackson Memorial Hospital, Miami, and other places, by people like eighteen year-old George Cunningham. George was injured playing football on November 21, 1973. As a result, he is paralyzed from the neck down. Nu-Life is built by Scientific Systems, International, and combines two small video display screen and a miniature computer. With the aid of the device, George can do for himself what others had to do before.



DIAGNOSING VISUAL PROBLEMS—A patient's vision is being tested on this compact diagnostic device which affords simple and accurate testing in a fraction of the time usually required. The device has wide possibilities for use in the diagnosis and treatment of disorders affecting vision. Called the Automated Visual Sensitivity Tester (AVST), the mechanism was originally developed by a team of research Scientists at Ames Research Center for astronaut eye examinations during long duration missions.



INSTANT REPORTS ON HOSPITAL PATIENTS—This instrumented hospital room in Huntsville, Ala. displays a variety of devices installed for remote monitoring of a patient's condition. Besides being in instant touch with a nursing station, a patient is able to open and close doors and windows, control room temperature, change channels and control volume on a t.v. set, dial a radio or telephone and adjust his bed position. Much of the equipment making these actions possible was developed from NASA technology.

Medical Unit Results From Space Work

A suitcase-sized medical unit will permit trained technicians to give prompt professional care to victims at the scene of an emergency.

The 40-pound unit, designed to be carried in ambulances, was developed by SCI Systems Inc., of Houston, based in part on technology developed from NASA's manned space flight program.

Called Telecare, the unit is designed for use by medical technicians under radio supervision of a physician who may be miles away on a hospital emergency or even in his office.

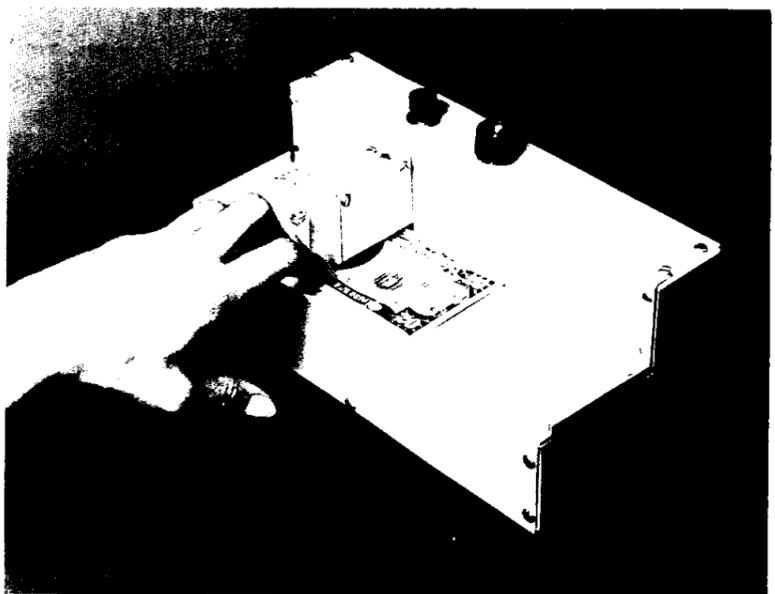
Brought together for the first time in a single portable package, the Telecare unit equipment includes a respiratory resuscitation system; a 15 minute oxygen supply in a lightweight canister developed from space technology; an electrocardiogram display and telemetry system; a defibrillator for external heart stimulation; a semi-automatic indirect blood pressure measurement system using a special microphone placed beneath a hand-inflated cuff, similar to the blood pressure device used in the Skylab Program; and a basic pharmaceutical pack.

Optional equipment can include an electroencephalogram to permit remote observation and detection of brain waves stemming from technology first devised for the Skylab sleep analyzer and a strip chart recorder and tape recorders.

Field tests of the system were conducted earlier this year under the direction of the Harris County Medical Society. Houston plans to equip 28 rescue vehicles with Telecare units and to train technicians to operate them before the end of the year.



ON-THE-SCENE-MEDICAL TREATMENT—New compact mobile equipment using NASA-developed technology has been developed for emergency treatment of accident victims or persons suffering heart seizures. In this demonstration, medical technicians are applying a portable defibrillator to stimulate a patient's heart. Two-way communication is also provided with a physician or hospital emergency room.



MONEY IDENTIFIED FOR THE BLIND—Identifying the denomination of paper currency by its sound "signature", this device is both reliable and fast. As a bill is passed under a light source, a photo-transistor measures changes in the bill's light patterns. These signals are converted to beeping sounds, different for various denominations of bills, and readily identifiable by blind persons. The concept, developed by NASA's Biomedical Applications Team at the Southwest Research Institute, San Antonio, is based on technology reported by NASA for the semiautomatic inspection of microfilm records.